



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/342,453	06/29/1999	EDGAR J. ST. PIERRE	E0295/7100/R	6555

7590 10/06/2004

ROBERT PLOTKIN  
C O WOLF GREENFIELD AND SACKS PC  
FEDERAL RESERVE PLAZA  
600 ATLANTIC AVENUE  
BOSTON, MA 022102211

EXAMINER

THAI, TUAN V

ART UNIT	PAPER NUMBER
----------	--------------

2186

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/342,453

Applicant(s)

ST. PIERRE ET AL.

Examiner

Tuan V. Thai

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-11, 13-18, 20-22, 25-28, 30-34 and 36-38 is/are rejected.
- 7) ☒ Claim(s) 6, 12, 19, 24, 29 and 35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

Art Unit: 2186

**Part III DETAILED ACTION**

***Specification***

1. This office action is in response to Applicant's communication filed July 26, 2004. This amendment has been entered and carefully considered. Claims 1-38 remain pending in the application.

2. Applicant's arguments with respect to claims 1-38 have been considered but are deemed to be moot in view of the new grounds of rejection. The finality of the previous office action is hereby withdrawn. Any inconvenience is *SINCERELY* regretted.

3. Applicant is reminded of the duty to fully disclose information under 37 CFR 1.56.

***Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-5, 7-11, 13-18, 20-23, 25-28, 30-34 and 36-38 are

Art Unit: 2186

rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art; hereinafter AAPA, in view of Saxon (USPN: 5,758,359).

As per claims 1 and 13-14; AAPA discloses a computer system 10 including a host computer 16, a storage device 16 for storing client data 16a-16d from the host computer 12, and a computer-readable backup storage medium is taught as backup server 20 for storing backup data copied from the storage device 16 (e.g. figure 1 labeled as prior art; also see specification, page 1, third paragraph bridging page 2, second paragraph); AAPA further discloses apparatus and method for duplicating the backup data stored on the backup storage medium comprising "copying the backup data from the backup storage medium onto at-least one computer-readable duplicate backup storage medium as duplicate backup data" as being equivalent to **media duplication** wherein data from the backup storage medium (backup trail 29) is copied to the duplicate backup storage medium (media duplication trail 31) in a one-to-one correspondence (e.g. see page 4, lines 5-12).

AAPA teaches the invention as claimed with one exception of copying/backing-up **only a subset of the backup data** from the at least one backup storage medium onto the duplicate backup storage medium. First of all, partial backup is notorious old and well known in the memory storage art; secondly, as being illustrated by Saxon in the teaching of method and apparatus for performing

Art Unit: 2186

retroactive backups in a computer system, Saxon discloses partial backup is used to minimize the usage of the CPU and is not a time consuming process wherein one a subset of data or files is copied or backup (e.g. see column 1, lines 30-39). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the current invention was made to implement the partial backup as being taught by Saxon for that of AAPA's current invention wherein only a subset of data being backed-up instead of full backup which is known as time-consuming and tends to monopolize the CPU for a lengthy period of time. In doing so, it would reduce the CPU operational time, and allow it to process additional tasks/instructions therefore enhancing system throughput; in addition, it would further reduce bus utilization that is required if full duplication/backup would have been utilized, therefore being advantageous.

As per claims 2 and 15; AAPA clearly discloses that backup data includes work items 16a-16d such as file systems, directories, databases or files (e.g. see specification, page 2, line 1);

As per claim 3-4 and 16-17; the further limitation of the duplicate backup storage medium having different types/properties than the backup storage medium is being disclosed as "backup storage media in a backup trail may in the same backup storage device or in a different backup storage device than the duplicate

Art Unit: 2186

backup storage media in the corresponding media duplication trail (e.g. see specification, page 4, first paragraph, lines 13-17), in addition, AAPA further discloses "each of the backup storage trail 29 and the media duplication trail 31 may include backup storage media in any available backup storage device (e.g. page 4, first paragraph, lines 16-17) which is known to includes any of the known storage medium such as magnetic, optical, tape media, flash... etc;

As per claims 5 and 18; AAPA discloses the storing in a logical duplication database a record indicating that the subset of the backup data copied which has been copied to the at least one duplicate backup storage medium (e.g. see specification, page 5, second paragraph);

As per claim 7; AAPA discloses the invention as claimed, detailed above with respect to claim 1; AAPA however does not particularly disclose a computer-readable medium having of instructions to carry out the steps of claim 1 to be implemented on a computer as being claimed in claim 7. However, one of ordinary skill in the art would have recognized that computer readable medium (i.e., floppy, cd-rom, etc.) carrying computer-executable instructions for implementing a method, because it would facilitate the transporting and installing of the method on other systems, is generally well-known in the art. For example, a copy of the Microsoft Windows operating system can be found on

Art Unit: 2186

a cd-rom from which Windows can be installed onto other systems, which is a lot easier than running a long cable or hand typing the software onto another system. The examiner takes Official Notice of this teaching. Therefore, it would have been obvious to put AAPA's program on a computer readable medium, because it would facilitate the transporting, installing and implementing of AAPA's program on other systems.

As per claim 8; AAPA clearly discloses that backup data includes work items 16a-16d such as file systems, directories, databases or files (e.g. see specification, page 2, line 1);

As per claims 9-10; the further limitation of the duplicate backup storage medium having different types/properties than the backup storage medium is being disclosed as "backup storage media in a backup trail may in the same backup storage device or in a different backup storage device than the duplicate backup storage media in the corresponding media duplication trail (e.g. see specification, page 4, first paragraph, lines 13-17), in addition, AAPA further discloses "each of the backup storage trail 29 and the media duplication trail 31 may include backup storage media in any available backup storage device (e.g. page 4, first paragraph, lines 16-17) which is known to include any of the known storage medium such as magnetic, optical, tape media, flash... etc;

As per claim 11; AAPA discloses the storing in a logical

Art Unit: 2186

duplication database a record indicating that the subset of the backup data copied which has been copied to the at least one duplicate backup storage medium (e.g. see specification, page 5, second paragraph);

As per claims 20-21; AAPA discloses a computer system 10 including a host computer 16, a storage device 16 for storing client data 16a-16d from the host computer 12, and a computer-readable backup storage medium is taught as backup server 20 for storing backup data copied from the storage device 16 (e.g. figure 1 labeled as prior art; also see specification, page 1, third paragraph bridging page 2, second paragraph); AAPA further discloses the backup data including a first work item (e.g. work item 16a; see fig. 1), method for duplicating the backup data stored on the backup storage medium comprising reading the backup data corresponding to the first work item from at least on backup storage medium as a logical data stream and writing the backup data ... as a logical data stream as being equivalent to **media duplication** wherein the backup process receives the instruction from the server backup process 22 to initiate backup of the specified ones of the work items 16a-d to the server backup process 22 and instructs to store the work items 16a-d to on a specified one or more of the backup storage media 28a-e (e.g. see page 2, lines 9 et seq.); also data from the backup storage medium (backup trail 29) is copied to the duplicate backup



Art Unit: 2186

storage medium (media duplication trail 31) in a one-to-one correspondence (e.g. see page 4, lines 5-12). AAPA teaches the invention as claimed with one exception of *duplicating only some of the backup data stored on the backup storage medium or only a subset of the backup data* (as in claim 21 of NOT to duplicate the second work item, e.g. work item 16b) from the at least one backup storage medium onto the duplicate backup storage medium. First of all, partial backup is notorious old and well known in the memory storage art; secondly, as being illustrated by Saxon in the teaching of method and apparatus for performing retroactive backups in a computer system, Saxon discloses partial backup is used to minimize the usage of the CPU and is not a time consuming process wherein one a subset of data or files is copied or backup (e.g. see column 1, lines 30-39). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the current invention was made to implement the partial backup as being taught by Saxon for that of AAPA's current invention wherein only a subset of data being backed-up instead of full backup which is known as time-consuming and tends to monopolize the CPU for a lengthy period of time. In doing so, it would reduce the CPU operational time, and allow it to process additional tasks/instructions therefore enhancing system throughput; in addition, it would further reduce bus utilization that is required if full duplication/backup would have been

Art Unit: 2186

utilized, therefore being advantageous.

As per claim 22; AAPA discloses that backup data being stored on the backup storage means of disk spaces of different network file server which is known to have different properties (e.g. see specification, page 4, first paragraph, lines 13-17);

As per claim 23; AAPA discloses storing in a logical duplication database a record indicating that the first work item has been copied to the at least one duplicate backup storage means (e.g. see specification, page 5, second paragraph);  
);

As per claims 25-28; AAPA discloses the invention as claimed, detailed above with respect to claims 20-23; AAPA however does not particularly disclose a computer-readable medium having of instructions to carry out the steps of claims 20-23 to be implemented on a computer as being claimed in claims 25-28. However, one of ordinary skill in the art would have recognized that computer readable medium (i.e., floppy, cd-rom, etc.) carrying computer-executable instructions for implementing a method, because it would facilitate the transporting and installing of the method on other systems, is generally well-known in the art. For example, a copy of the Microsoft Windows operating system can be found on a cd-rom from which Windows can be installed onto other systems, which is a lot easier than running a long cable or hand typing the software onto another

Art Unit: 2186

system. The examiner takes Official Notice of this teaching. Therefore, it would have been obvious to put AAPA's program on a computer readable medium, because it would facilitate the transporting, installing and implementing of AAPA's program on other systems.

As per claims 30-34; see argument with respect to claims 20-23, noting that claims 30-34 encompass the same scope of invention as to that of claims 20-23 except that they are drafted as apparatus format rather method format as being claimed; for example, AAPA discloses a computer system 10 including a host computer 16, a storage device 16 for storing client data 16a-16d from the host computer 12, and a computer-readable backup storage medium is taught as backup server 20 for storing backup data copied from the storage device 16 (e.g. figure 1 labeled as prior art; also see specification, page 1, third paragraph bridging page 2, second paragraph); AAPA further discloses the backup data including a first work item (e.g. work item 16a; see fig. 1); a controller is taught as the media duplication process 36, the means for reading/writing to carry-out the copying process is embedded in the media duplication process 36 (e.g. see fig. 1, page 4, first paragraph); the claims are therefore rejected for the same reasons as being set forth above.

As per claim 36, see argument with respect to claim 1, in addition, the further limitation of different type of backup

Art Unit: 2186

storage medium is taught by AAPA as "backup storage media in a backup trail may in the same backup storage device or in a different backup storage device than the duplicate backup storage media in the corresponding media duplication trail (e.g. see specification, page 4, first paragraph, lines 13-17), in addition, AAPA further discloses "each of the backup storage trail 29 and the media duplication trail 31 may include backup storage media in any available backup storage device (e.g. page 4, first paragraph, lines 16-17) which is known to includes any of the known storage medium such as magnetic, optical, tape media, flash... etc;

As per claim 37; AAPA discloses the invention as claimed, detailed above with respect to claim 36; AAPA however does not particularly disclose a computer-readable medium having of instructions to carry out the steps of claim 36 to be implemented on a computer as being claimed in claim 37. However, one of ordinary skill in the art would have recognized that computer readable medium (i.e., floppy, cd-rom, etc.) carrying computer-executable instructions for implementing a method, because it would facilitate the transporting and installing of the method on other systems, is generally well-known in the art. For example, a copy of the Microsoft Windows operating system can be found on a cd-rom from which Windows can be installed onto other systems, which is a lot easier that running a long cable or hand typing

Art Unit: 2186

the software onto another system. The examiner takes Official Notice of this teaching. Therefore, it would have been obvious to put AAPA's program on a computer readable medium, because it would facilitate the transporting, installing and implementing of AAPA's program on other systems.

As per claims 38-39; see argument with respect to claim 36, noting that claims 38-39 encompass the same scope of invention as to that of claim 36 except that they are drafted as apparatus format rather method format as being claimed; for example, AAPA discloses a computer system 10 including a host computer 16, a storage device 16 for storing client data 16a-16d from the host computer 12, and a computer-readable backup storage medium is taught as backup server 20 for storing backup data copied from the storage device 16 (e.g. figure 1 labeled as prior art; also see specification, page 1, third paragraph bridging page 2, second paragraph); AAPA further discloses the backup data including a first work item (e.g. work item 16a; see fig. 1); a controller is taught as the media duplication process 36, the means for carrying the copying process is embedded in the media duplication process 36 (e.g. see fig. 1, page 4, first paragraph); the claims are therefore rejected for the same reasons as being set forth above.

**Allowable subject matter**

Art Unit: 2186

6. Claims 6, 12, 19, 24, 29 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and intervening claims.

#### *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Thai whose telephone number is (703) 305-3842. The examiner can normally be reached on from 6:30 A.M. to 4:00 P.M.

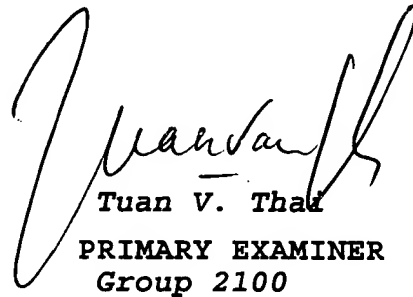
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew M. Kim can be reached on (703)-305-3821. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system,


Art Unit: 2186

see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVT/September 25, 2004



Tuan V. Thai  
PRIMARY EXAMINER  
Group 2100



MATTHEW KIM  
ASSISTANT PATENT EXAMINER  
TECHNOLOGY CENTER 2100